Information Technology Investments

Business Value Assessments (Justifications)

Discussion Topics and FAQ with Summaries

IT Executive Partners, LLC

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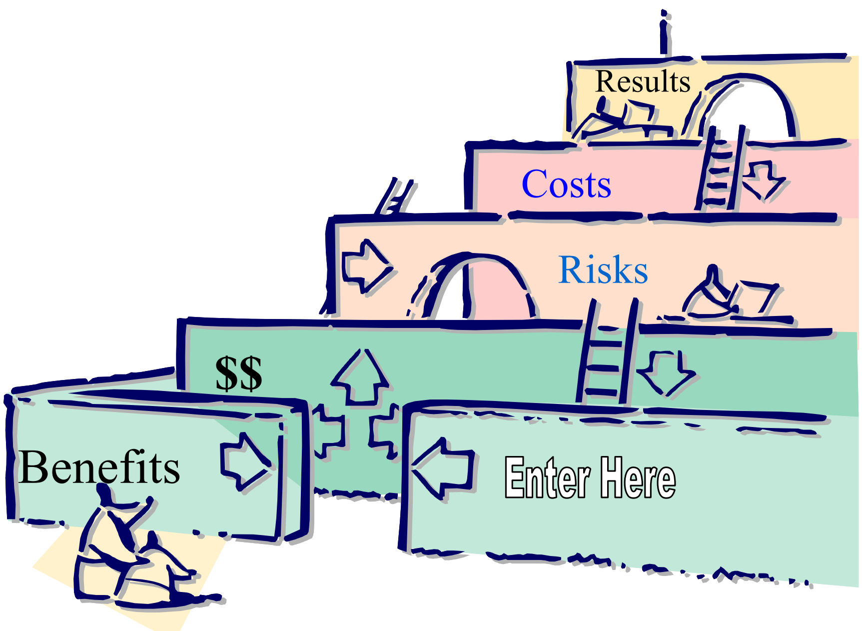

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Contacts: Jerry Hignite (818) 706-3252 Bill Parker (281) 346-2051 B. Guthridge (830) 755-4228

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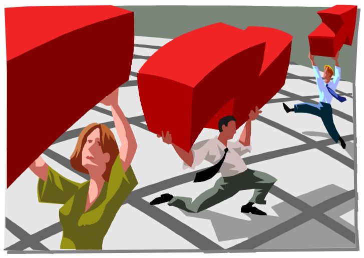
Contacts: Jerry Hignite (818) 706-3252 Bill Parker (281) 346-2051 B. Guthridge (830) 755-4228

IT Investment Analysis and Justification – Introduction to Discussions and FAQ



During the course of our work we find many common questions are asked about the IT investment analysis and justification process. This has led us to realize that this process is not well established and the rigors to be successful are often not well understood or practiced.

We realize that it is a challenge to justify IT investments in the current business environment, but at the same time businesses are willing to invest if the business value is well established. It is equally important to be able to establish which investments do not result in any significant business value and, thus, be rejected before they consume capital, resources, and effort.

Common successful attributes of an investment initiative are:

- Follows a rigorous process that identifies and quantifies the business value
- Engages the participation and support of the targeted business owners
- Documents the details that support the business assumptions and resulting benefits
- Establishes links between the identified business changes and the organization's goals and objectives (strategic direction)
- Provides a complete assessment of the business potential including investment costs, operating costs, identified risks, resource commitments, and change-management issues

The key is to identify the key opportunities that also advance the business' goals and objectives (strategic direction).

Realizing that organizations have different requirements and situations with regard to IT related investment justifications, we have included in the following a summary of the most common and critical questions and topics about the investment assessment process.

op·por·tu·ni·ty
n. pl. **op·por·tu·ni·ties**

1.
   a. A favorable or advantageous circumstance or combination of circumstances.
   b. A favorable or suitable occasion or time.
2. A chance for progress or advancement.

Source: Dictionary.com

"ROI - Why Most Approaches Fail and How to Succeed"

There are and have been many varied approaches to developing **R**eturn **O**n **I**nvestments (**ROI**) for IT justifications, and most fail to:

- Convince management of the potential business value because they lack sufficient details to support their claims
- Sufficiently identify and quantify associated risks.
- Build support within the targeted business area by not successfully communicating the ***"what is in it for me?"*** and ,thus, lack business support

The Gartner Group in a recent study determined that ***"over 25% of IT investments failed to meet expectations"***. Of course, there are IT initiatives that should not be supported, and it is equally important to identify these along with the rational business details (benefits and risks) that identify why.

There is no determination of how many IT initiatives should have been supported, but failed to convince management to invest due to the lack of a creditable business justification, but it is considered to be significant.

Key success factors:

- Identify potential business process changes (What is changing?)
- Identify current barriers and how the investment will enable them (why this cannot be done without the investment)
- Quantify These Changes (So What?)
- Facilitate the participation of the stakeholders in the process
- Identify any risks that may impact the full benefit realization.
- Align claimed benefits with existing business goals & strategies

Understanding these issues, their impact and adopting a more business value approach will establish a much more successful overall environment for companies looking to improve their overall bottom-line results from investments in Information Technology.

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"If you are a decision maker, what key questions should you ask to give you more insight about a proposed IT Investment Justification?"

Most of the obvious questions concerning a proposed IT investment justification concern the internal rate of return (IRR), return on investment (ROI), cash flow, total investment, and amount of claimed benefits. These are obviously good initial measures of a potential investment. For further insight and to better validate a proposed investment, here are some additional questions you should consider:

- What business assumptions are supporting the proposed business benefits?
- Do the targeted business owners support these business assumptions? If not, why not?
- Do the claimed benefits support or link to the company's goals, objectives and strategies? Can you illustrate this link?
- What is the probability the claimed benefits will be achieved? How is this formulated?
- Do the investment assumptions (costs) include the total cost of ownership (training, equipment, services, support, and internal resources)
- What management-of-change issues need to be addressed / initiated to support the claimed benefits?
- Can you show the predicted year-by year benefit accumulation and costs over the period of this investment (5 years). Is there any learning curve?
- What investment risks have you identified and how might they impact the proposed benefits?
- What are the most sensitive assumptions in the calculation of the proposed investment justification?

You should expect sufficient, detailed answers to these questions.

"How Are IT Benefits Determined and What Are the Critical Success Factors?"

Determining the business value of IT investments requires a multi-dimensional approach to succeed:

1. Benefits need to be based on business changes which, in turn, potentially create business value and which can be quantified.
2. The considered business changes need to be expressed in reasonable business assumption terms that are acceptable to the targeted business owners (stakeholders).
3. The critical risks must be identified, quantified and their probability included in any benefit calculations and projections.
4. The most sensitive investment assumptions need to be clearly identified so they can be managed to meet the benefit expectations.
5. The business owners and stakeholders need to participate in the development of all assumptions and concur with resulting expectations.
6. Benefits need to be linked to the business goals, objectives and strategies to provide business value.

Building support for a proposed investment is often the most overlooked dimension of building a business case. It begins with early involvement of stakeholders, and includes listening to and understanding their issues. In fact, it is often only through this process the full impact – both benefits and risks – on the enterprise can be assessed and, thus, the potential benefits made achievable

"How can you use IT Investment Assessments to determine which investments have priority? Should the decision be based on ROI?"

Most companies face decisions on how to best invest their capital budgets for competing information technology initiatives. Should the priority go to those that propose the largest return-on-investment (ROI)? In our experience, there is more at stake than just getting the largest return on your investments.

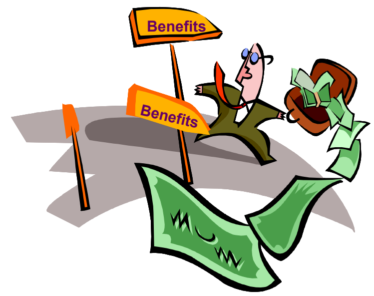
Firstly, you should determine if the proposed ROI is fully qualified (see the discussion in this on the topic ***"How Are IT Benefits Determined and What Are the Critical Success Factors?"***).

Next, it is important to evaluate the how and to what degree each specific investment initiative advances and supports the company's goals, objectives and strategies. Also refer to the discussion ***"The Value of Linking an IT Investment's Potential Business Benefits to the Business' Goals and Objectives"*** as it provides a response on what you should expect in this regard. You should also consider each investment's statistical probability analysis to assist in determining the overall stability of the associated business assumptions.

Additionally, you can evaluate the results of the sensitivity analysis to determine the potential impact on the expected results by specific variations in identified risks and business drivers outside of the company's control.

Ranking and evaluation of projects by these criteria, in combination with the developed ROI, will present a clearer view of your investment options that best utilize your capital to advance the company's vision.

"How Can Intangible ROI Benefits be Quantified?"



The quantification of intangible benefits has been most difficult as it deals with such elements as time, productivity, collaboration, information access, integration of business process and other such improvements. Traditionally, many business benefit justifications either ignored these or they attempted to grossly estimate them based on some percentage of a tangible element***. "Oh, these are valued at 2% of all operating expenses",*** is just one example of estimating intangible benefits. This type of benefit quantification is most often unacceptable to senior management and in this case they will usually concentrate on only the tangible benefits to carry to burden of investment approval.

Today, many of the IT initiatives being considered rely on many intangible elements to carry the burden of investment benefits. So, it becomes even more important to address these benefit elements in a manner that is supportable and defendable. Of course, more effort is required and more detail must be obtained to achieve this goal.

So, what is required and how can this be achieved? The key is to concentrate on defining the cause-affect of potential business changes. If an investment initiative will change a business process, then, **so what?**
Using this approach in concert with the business owners and documenting the results throughout all of the affected business processes will identify and quantify the most significant potential intangible business benefits.

"What Does Management Expect from an IT Investment Justification Assessment?"

To secure senior management's approval for an IT investment, it is important to anticipate what they expect from a justification assessment. In our experience, it is most important to clearly illustrate and present the business potential (benefits), the investment requirements (costs), and the critical success factors (risks).

The investment assessment needs to include these items over the period duration (years or months) of the overall investment:

- Budgeted Costs
- Required / Committed Resources
- Change-Management Issues
- Implementation Duration and Timing
- Risks and mediation thereof
- Benefit Realization
- Cost of Ownership (budget and resources)

For all of the above, there needs to exist enough documented detail to fully support the presented results. ***"So, what business assumptions are being made to claim these benefits?".*** This is a question that needs to be expected and addressed. Additionally, the business owners and stakeholders need to be fully aware and supportive of all business assumption details.

Several elements usually get overlooked:

- Total Cost of Ownership
- Identified Risks and their quantification / potential impact
- Change-Management Issues
    - Changes in the business processes
    - Training required to fully adopt the changes
    - New or additional business resources that may be required
    - The scheduling of these issues to coordinate with the implementation

In summary, management needs to quickly and easily see their options so they can feel comfortable that the decision they are considering is based on a reasonable, complete and creditable assessment.

"How to get started on an IT Investment Assessment?"

Getting started is often one of the most difficult tasks. It is important to prepare and organize the discovery activities to provide for the most effective assessment. First, it helps to acknowledge the different phases and associated activities of an assessment.

Our recommended approach contains three phases of activities, although we acknowledge that some activities may overlap. The phases are:

- Planning
- Discovery
- Measure, Analysis and Reporting

Planning

In the planning phase there are several activities focused on the targeted business area that need to be accomplished and they usually overlap each other:

- Identify and organize the assessment team
- Gather background details
- Prepare, schedule and organize the necessary interviews and/or workshops
- Develop an interview questionnaire and a communications memo
- Develop of list of business enabling capabilities that would be included in the proposed initiative
- Gather initiative cost details

Discovery

This phase is usually performed on-site and it has two important goals. The first goal is to “discover” the business potential of the proposed initiative. The second goal is to facilitate the participation and buy-in of the business area owners. Both of these activates need to be performed concurrently. The key to success is to assure the business owners support all discovered business potential. This requires the assessment team to share their discoveries and to solicit ideas on business potential from the respective business owners.

Measure, Analysis and Reporting

This phase requires the integration of the background and discovered information in a form that is expressed in terms of potential business improvement. There are costs, potential benefits, and risks that have been identified. These need to be put together to calculate the required financial analysis in one or more forms needed by the decision makers. This normally includes internal rate of return, cash flow, benefit accumulation, and investment outlays just to name a few.

"How to Discover, Identify and Document Business Assumptions"

One of the aspects of the "Discovery" phase of an IT assessment is to identify and quantify potential business benefits. The key to performing this task is assuming all business benefits as being driven by a set of business assumptions. So, what is a business assumption?

A business assumption is a list of each and every business change detail. For example, if your assessment believes this initiative will reduce the cost of production by reducing the amount of fuel expended, then you need to document this assumption. It may be, for example, that your discovery activities have identified the potential to decrease expended energy by .05% in stage 4 of production. This is based on providing integrated access to analysis results for operations personnel on a real-time basis and, thus, reducing the time to correct production targets and reducing deviations by 20%. This is a business assumption, along with the details of why this assumption is considered valid, and it is then used in the calculation of the respective benefit.

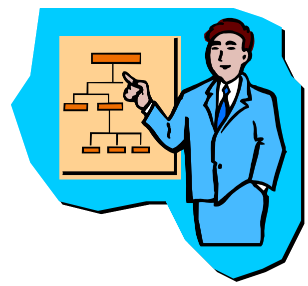
Why is this so important? If you calculate benefits, then you need to be able to explain the details upon which it is based. If there is some discussion with regard to this benefit, it needs to be with the assumption and not with only the resulting benefit calculation. This brings up a very important point; do not use business assumptions that are not supported by the business owners. If you do have these assumptions supported, then explaining the assumptions defaults to the credible business owners.

So, how do you identify business assumptions? These are discovered in concert with the respective business owners by considering the potential impact of introducing new or different business process capabilities that will be provided by the proposed initiative. For example, you can now view information integrated from both production and maintenance. The next step is to investigate the "So, What?" and determine if there is any business value. If there is, then the assumptions upon which this is based needs to be included and documented in the business assumptions list.

"The Value of Linking an IT Investment's Potential Business Benefits to the Business' Goals and Objectives"

The value of linking potential investment benefits to the business's goals and objectives validates the benefit's contribution to advancing these issues. The validity of benefits that cannot be attributed to this business direction diminishes their business value to the decision makers.

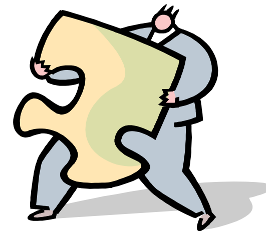
The difficultly most encountered in trying to establish a link between higher levels of business direction with much lower level benefits is this link is often not clear. A determined effort to establish this link is an important step towards gaining support for the proposed investment initiative. Our experience has shown that a typical initiative is linked to more than one goal and objective.



For example, saving energy could support the goal of reducing over all expenses and the goal of increasing the overall utilization of the facility's assets.

In general, providing a link between the claimed benefits and the business' goals and objectives is just another way of making it clearer to the decision makers the business value and validity of the potential investment. This is especially important when decision makers are deciding between multiple investments and determining their investment priorities based on not only the ROI, but advancing their strategic direction.

"You have completed the Discovery Phase of an IT Investment Assessment. How do you put it all together?"



Assuming you have completed the "Discovery" Phase with a process in mind, then one of the initial tasks is to begin completing the business assumptions. Business assumptions are the basis of all benefit formulations and provide the details to support these. It is always a good practice to review these with all participants, especially the targeted business owners and stakeholders, before finalization.

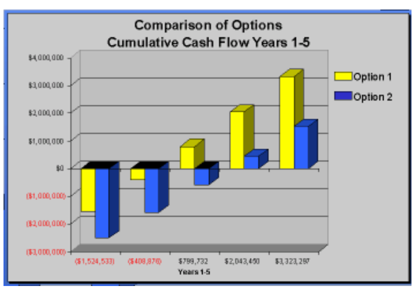
There are several other lists that need to be completed before any initial results can be formulated:

- Investment Costs
- Business Goals and Objectives linkage
- Financial Assumptions
- Risks Assumptions

With this information finalized, you can then begin to formulate the required benefit calculations and perform the resulting analysis. What is included in your final benefit calculations varies by the standards of your approval process, but this normally includes the following:

- Benefit Accumulation by Year
- Investment Costs by Year
- Cash Flow
- Internal Rate of Return

All of the values are included for the years or months of the investment period used by your organization. We find a period of 5 years is commonly used for IT investments.



We recommend you follow these calculations with a statistical probability and a sensitivity analysis. Then, begin to chart summary results and begin finalizing the recommendations. A final report and/or presentation can then be developed.

"What are investment assessment sensitivities, and how can they be used?"

An Investment assessment is based on several types of assumptions:

- Business changes
- Costs
- Risks
- Schedules
- Resources
- Outside influences and drivers

Within each of these categories, there are individual assumptions that influence the final calculated results. So, if these change on a percentage basis, what is the impact on the final results (positively and negatively percentages)? This should be evaluated for all assumptions and their relative impact be provided with the final results.

This is important to provide insight into what “drives” the potential benefits. This can also provide significant insight into the viability of the overall investment. It also presents management with a view of what assumption elements require special attention if the benefits are to be achieved.

Our experience has shown that, in general, only a relatively few assumptions have a significant impact on the final results. We recommend that the controllable, high impact assumptions be assigned management ownership and/or be included for close monitoring for the duration of any approved investment.

Additionally, if any assumptions appear to significantly impact the results without a reasonable explanation or conclusion, then an investigation into the assessment’s results should be performed to validate their influence. Due to complexities in many assessments, errors in formulations are often discovered by erroneous and/or unexplained sensitivity analysis results.

IT Investment Assessments (Justifications)